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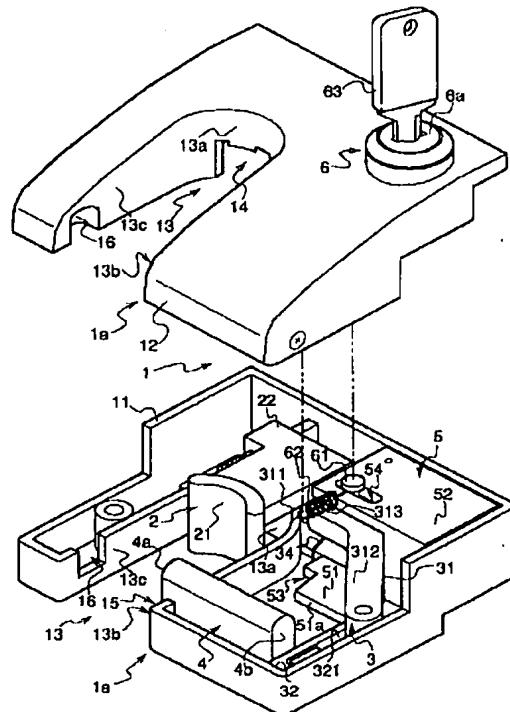
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(54) 【発明の名称】 傘立て用施錠装置

(57) 【要約】

【目的】内部への異物の侵入を防止することによって耐久性を高めたワンタッチ式の傘立て用施錠装置を提供する。

【構成】施錠部材4が支持部材1に対し直線状に進退して凹部13を開閉するように構成し、支持部材1の凹部13の側面13bに設けた開口部15の形状を施錠部材4の横断面形状に近似させることにより、解錠位置においても施錠位置においても両者の隙間を略等しくかつ極力小さく保つ。



【特許請求の範囲】

【請求項 1】前面に傘の柄を収納する凹部を凹設した支持部材と、前記支持部材に収納され凹部の側面から凹部に進退するように配設した施錠部材と、前記凹部の内方端近傍に前後に進退可能に配設した開閉ボタンと、前記開閉ボタンの進退運動を前記施錠部材の進退運動に変換する動作変換部とを具備してなり、開閉ボタンを後退させると施錠部材が凹部側面の開口部から凹部内に進出して凹部の両側面を連結して施錠を行うよう構成してなる傘立て用施錠装置であつて、

前記施錠部材の進退動作中に、施錠部材と前記開口部との隙間が略一定に保たれるように設定していることを特徴とする傘立て用施錠装置。

【請求項 2】前記施錠部材が直線形状であつて、直線上を進退動作するように構成していることを特徴とする請求項 1 記載の傘立て用施錠装置。

【発明の詳細な説明】

【0 0 0 1】

【産業上の利用分野】本発明は、ワンタッチで傘を好適に保管しうる傘立て用施錠装置に関するものである。

【0 0 0 2】

【従来の技術】従来の傘立て用施錠装置としては、図 5 に示すように、支持部材 a の前面に傘の柄を収納する凹部 b を凹設し、また施錠部材 c を支持部材 a の前面端部に垂直軸回りに回動可能に枢着して構成されたものが挙げられる。このような構成の傘立て用施錠装置に傘を保持して施錠するためには、まず傘を凹部 b に配したのち、施錠部材 c を解錠位置 A から施錠位置 B に回動したのち施錠を行って、施錠部材 c を施錠位置 B に固定する。このような構成の傘立て用施錠装置では、傘を凹部に保持しつつ施錠部材 c を回動する必要があるため、施錠作業を片手で行うことは困難である。

【0 0 0 3】この不具合を解消するため、図 6 に示すように、施錠部材 c を、解錠時には凹部 b の側面から支持部材 a 内部に収納されるように、回動可能に支持部材 a の内部に配設すると共に、凹部 b の内方端から開閉ボタン d を前面に向け突設して構成されたものがある。このような構成の傘立て用施錠装置に傘を保持させて施錠するためには、まず傘を凹部 b に配したのち、傘により開閉ボタン d を押動して、施錠部材 c を支持部材 a の内部の解錠位置 A から凹部 b の側面を介して凹部 b 内の施錠位置 B まで進出させることによって、凹部 b の両側面を施錠部材 c により連結して施錠する。傘によって開閉ボタン d を押動するのみで施錠を行うことができるため、施錠作業は片手で行うことができ、極めて簡便である。

【0 0 0 4】

【発明が解決しようとする課題】ところが、このような構造の傘立て用施錠装置であると、故障しやすいという不具合がある。すなわち、支持部材 a には施錠部材 c が突没する側の凹部側面に開口部 e を設けて施錠部材 c が

進退可能になるよう構成しているが、施錠部材 c を開閉ボタン d の押動により直接回動している従来の傘立て用施錠装置では、開口部 e を非常に大きく設定せざるを得ない。そのため、開口部 e から水分や異物が施錠装置の内部に侵入しやすく、錆び付きや異物詰まりなどの故障の最大の原因となっている。

【0 0 0 5】本発明は、これらの課題を有効に解決することを目的としている。

【0 0 0 6】

10 【課題を解決するための手段】本発明は、かかる目的を達成するために、次のような構成を採用したものである。

【0 0 0 7】すなわち、本発明にかかる傘立て用施錠装置は、前面に傘の柄を収納する凹部を凹設した支持部材と、前記支持部材に収納され凹部の側面から凹部に進退するように配設した施錠部材と、前記凹部の内方端近傍に前後に進退可能に配設した開閉ボタンと、前記開閉ボタンの進退運動を前記施錠部材の進退運動に変換する動作変換部とを具備してなり、開閉ボタンを後退させると施錠部材が凹部側面の開口部から凹部内に進出して凹部の両側面を連結して施錠を行うよう構成してなるものにおいて、前記施錠部材の進退動作中に、施錠部材と前記開口部との隙間が略一定に保たれるように設定していることを特徴とする。

20 【0 0 0 8】前記施錠部材の実施の一態様としては、直線形状であつて、直線上を進退動作するようにしたものをおあげることができる。

【0 0 0 9】

【作用】このような構成の傘立て用施錠装置であると、開口部の形状を施錠部材の横断面形状に近似させることによって、施錠部材と開口部との隙間を施錠時にも解錠時にも極力小さく保つことができる。そのため、かかる隙間を介して水分や異物が支持部材の内部に侵入する可能性を大巾に減少させることができ、故障の恐れをほとんど皆無となすことが可能になる。

【0 0 1 0】

【実施例】以下、本発明の一実施例を、図 1 ~ 図 4 を参照して説明する。

40 【0 0 1 1】この実施例における傘立て用施錠装置は、図 1 および図 2 に示すように、支持部材 1 と、開閉ボタン 2 と、動作変換部 3 と、施錠部材 4 と、ロック部 5 と、鍵部 6 によって構成される。

【0 0 1 2】支持部材 1 は、樹脂製のもので、上面が開放された部分筐体形状をなす本体 1 1 と、下方が開放された部分筐体形状をなす蓋部 1 2 を具備してなり、本体 1 1 の上面に蓋部 1 2 を添設して中空の筐体として構成される。前面 1 a には、傘の柄を収納する凹部 1 3 を後方に向かって凹設している。凹部 1 3 の幅は収納する傘の柄の幅よりもやや大きく設定する。内方端 1 3 a は円弧状をなし、開閉ボタン 2 を進退させるために開口部 1

4を設けている。右側面13bには、施錠部材4を進退させるために開口部15を、また左側面13cには施錠位置で施錠部材4の先端4aと係合する係合孔16を、それぞれ設けている。

【0013】開閉ボタン2は、樹脂製のもので、凹部13の内方端13aに前後に進退可能に配設される。前面のボタン面21は、凹部13の内方端13aの形状と略等しい円弧状をなすようにしている。ボタン面21の後面中央からは、板状の基端部22を後方に延出させ、凹部13の内方端13aに設けた開口部14に挿通している。基端部22の後端下面には、動作変換部3と係合するために、左右に横長の係合溝23を凹設している。

【0014】動作変換部3は、アーム31とスライダ32とを具備してなる。アーム31は、樹脂製の梃形状のもので、短手部311を開閉ボタン2側に、長手部312を施錠部材4側に設定し、支軸313を介して支持部材1の本体11に回動可能に枢着されている。支軸313にはねじりばね314を配設して、短手部311が開閉ボタン2を前方に向けて押動する方向に回動するよう弾性付勢している。短手部311の先端近傍には、係合ピン315を上方に突設して、開閉ボタン2の基端部22の下面の係合溝23に進入させスライド自在に係合させている。また、長手部312の先端近傍には、施錠部材4と係合するために、係合ピン316を下方に向け突設している。スライダ32は、上面に前後方向に一定深度の係合溝321を形成したので、長手部312の下面に設けた係合ピン316を進入させてアーム31とスライド自在に係合する。なお、前記スライダ32は、左側面前端で、施錠部材4の後端4bに固設されている。

【0015】施錠部材4は、樹脂製のもので、上下方向に断面長円形状である棒形状をなし、支持部材1の本体11に左右に進退可能に配設される。解錠位置では、図3に示すように、支持部材1の内部に収納される。施錠位置では、図4に示すように、凹部13の右側面13bの開口部15から凹部13内に進出して左側面13cの係合孔16に先端4aが進入して係合する。

【0016】ロック部5は、樹脂製のもので、左右に延出する基部51の後端右側に、鍵係合部52を上方に突設して構成される。基部51の前面51aは、動作変換部3のスライダ32の後端32aに添設し、左端には後方へ切り欠いた切欠部53を設けている。鍵係合部52の上端には、鍵部6と連結するために、左右に延出する長孔54を貫通しておく。

【0017】鍵部6は、金属製のもので、支持部材1の蓋部11に配設される。鍵部6は、支持部材1の蓋部12下面においてその回転軸心から偏位した部位に弾性付勢ピン61を取着している。つまり、弾性付勢ピン61は、鍵部6の回転に伴って前後方向へ変位の大きい円弧運動を行うように設定されたもので、ばね62によって前方に弾性付勢されるとともに、ロック部5の長孔54

に進入してこれとスライド自在に係合するように構成されている。鍵部6の上面6aには、金属製の鍵63を挿通でき、鍵63の回動によって前記弾性付勢ピン61を後方の解錠位置に押動するように構成している。また、弾性付勢ピン61が図3に示す解錠位置に来たときには鍵63の抜け止めが行われ、弾性付勢ピン61が図4に示す施錠位置に移動した際にはこの抜け止めが解除されるように、図示しない既知の鍵抜け止め機構が施されている。

【0018】このような構成の傘立て用施錠装置であると、施錠の操作は次のようにになる。まず、傘の柄を凹部13に配して、図3に示すように、開閉ボタン2のボタン面21に添設して後方に押動する。これにより、開閉ボタン2の基端部22は後方に押動されるため、動作変換部3のアーム31は、係合ピン315を介して短手部311が後方へ押動され、支軸313を軸に右回りに回動されるので、長手部312とともに係合ピン316は左前方に進出してスライダ32に設けた係合溝321内を前方へスライドしながら同時に該スライダ32を左方へ押動する。つまり、開閉ボタン2の後方への移動がアーム31の回動を介してスライダ32の左方への移動に動作変換される。これにともない、施錠部材4はスライダ32に押動されて、支持部材1内の解錠位置から左方に移動して凹部13の右側面13bの開口部15を介して凹部13内へ進出し、図4に示すように、凹部13の左側面13cの係合孔16に先端4aが進入・係合して、施錠位置にて停止する。同時に、動作変換部3のスライダ32の後端32aは、ロック部5の基部51に設けた切欠部53に至るため、図4に示すように、ばね62により前方に弾性付勢されていたロック部5は前方に移動して、切欠部53とスライダ32の後端32aとが係合する。これにより、スライダ32は右方への移動を阻止されるため、開閉ボタン2への押動を停止した後も、施錠部材4はスライダ32により施錠位置に保持される。また、ロック部5が前方に移動するに伴い、弾性付勢ピン61も前方に移動するため、図示しない抜け止め機構が解除されて、鍵部6から鍵63が抜き取り可能となる。

【0019】解錠する際には、鍵63を鍵部6に装入して回動することによって、弾性付勢ピン61が後方に移動してロック部5を後方に押動するため、ロック部5の基部51の切欠部53と動作変換部3のスライダ32の後端32aとの係合が外れて、スライダ32が右方に移動可能となる。これにより、動作変換部3のアーム31は、スライダ32を右方に移動させつつ、支軸313に配設されたねじりばね314によって左回りに回動する。これにともない、施錠部材4は施錠位置から右方に移動して解錠位置で支持部材1内に収納され、同時に、開閉ボタン2も前方に押動されて、施錠位置から解錠位置に復帰する。

【0020】このような構成の傘立て用施錠装置であると、施錠部材4は、凹部13への進退の際に直線上を進退するため、凹部13の右側面13bに設けた開口部15を施錠部材4の横断面形状に近似させれば、開口部15と施錠部材4との隙間を常に一定に保ちつつ、かつ非常に小さくすることができる。このため、水分や異物が支持部材1の内部に侵入する可能性を大巾に減少させ、かかる要因に基づく故障の発生を極めて小さくすることが可能となる。また、解錠位置において、施錠部材4の先端4aの位置が開口部15の位置にくるよう構成すれば、解錠時に施錠部材4の先端4aが開口部15の蓋の機能を果たしうるので、異物の侵入の可能性をさらに減少させることができる。また、開閉ボタン2のボタン面21は円弧形状をなすため、傘のグラつきを無くして整然たる収納状態を実現することができる上に、傘を添設して押動する際に傘が開閉ボタン2から外れる可能性を低減化して、ワンタッチで施錠する際の操作性を高めることができる。さらに、鍵部6以外の部材は全て樹脂性であるため、傘を不用意に傷付けることが無く、かつ耐久性の高いものとすることが可能になる。

【0021】なお、本発明における構成は、以上説明したものに限定されないのは勿論である。例えば、この実施例と左右対称な構成とすることも可能である。また、複数の施錠部材を凹部の両側面から進出させるよう構成することも可能である。また、施錠部材の形状は、直線形状とは限らず、例えば任意の横断面が開口部を通過し得るような円弧形状のものとすることも可能である。その他、本発明を逸脱しない範囲で種々変形が可能であ

る。

【0022】

【発明の効果】本発明にかかる傘立て用施錠装置は、以上詳述したように、開口部の隙間を施錠時にも解錠時にも等しく削減することによって、水分や異物が支持部材の内部に侵入する可能性を大巾に減少させることができ、かかる要因に基づく故障の懼れをほとんど皆無となることが可能になる、という格別の効果を奏するものである。

10 【図面の簡単な説明】

【図1】本発明の一実施例を示す分解斜視図。

【図2】図1を更に分解して示す斜視図。

【図3】同実施例の解錠状態を示す平面図。

【図4】同実施例の施錠状態を示す平面図。

【図5】従来例を示す平面図。

【図6】他の従来例を示す平面図。

【符号の説明】

1…支持部材

1a…前面

20 2…開閉ボタン

3…動作変換部

4…施錠部材

13…凹部

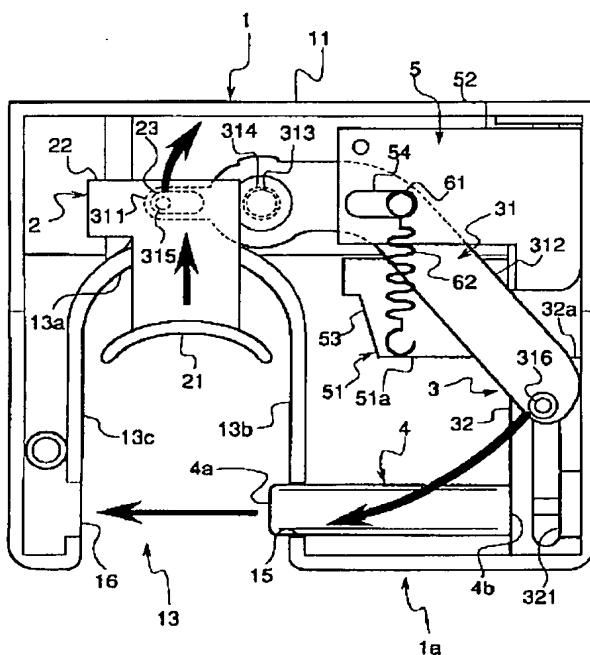
13a…内方端

13b…側面（右側面）

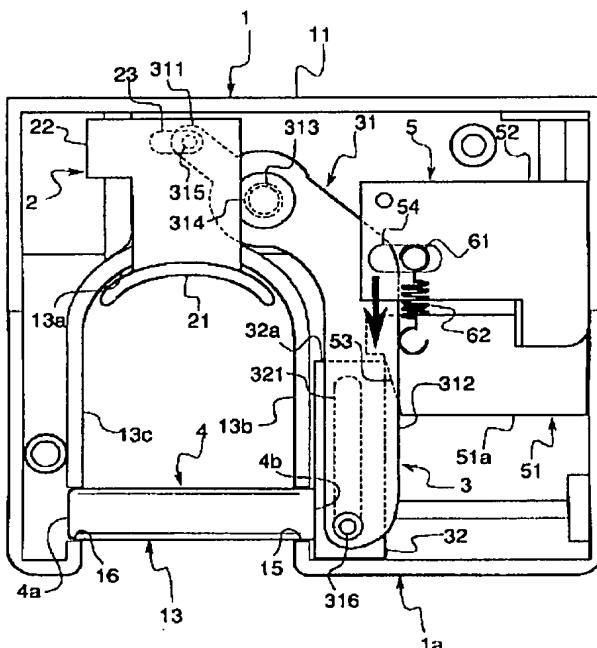
13c…側面（左側面）

15…開口部

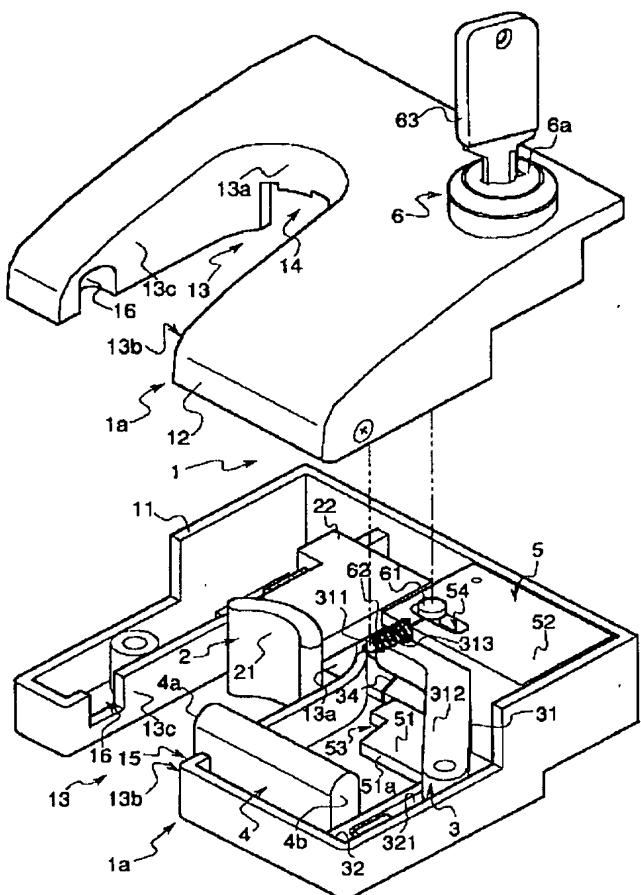
【図3】



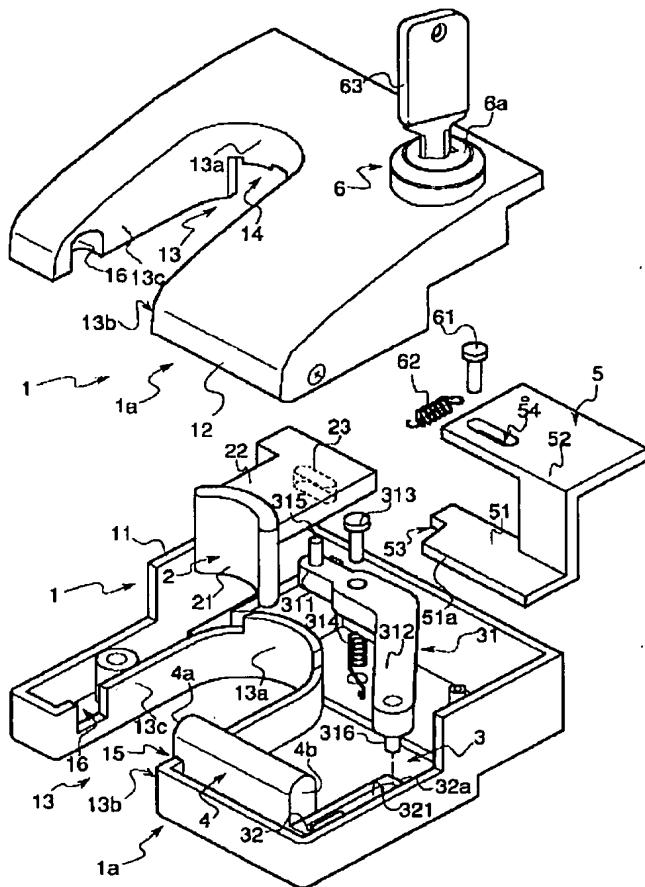
【図4】



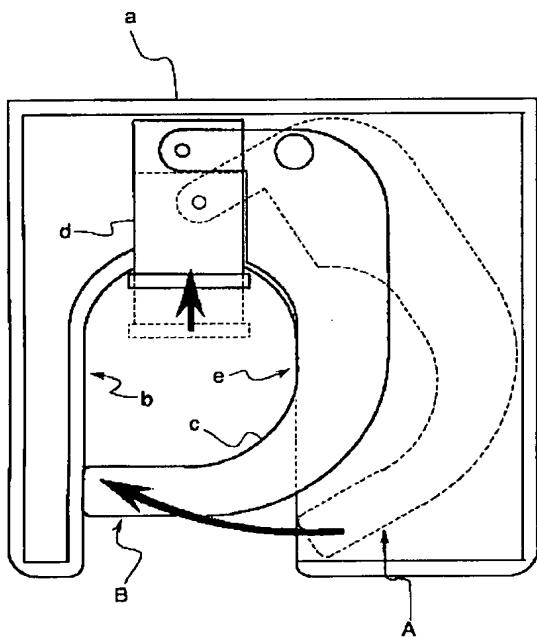
【図 1】



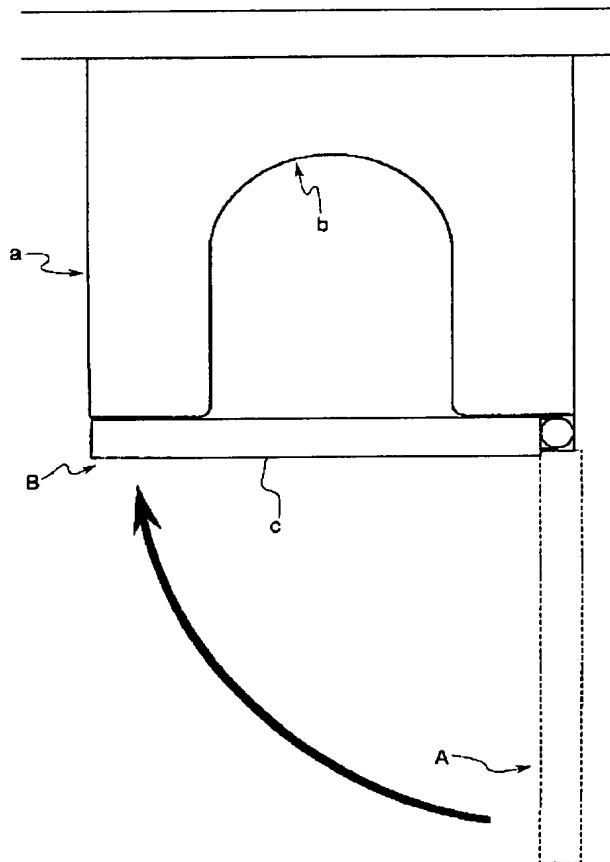
【図2】



【図6】



【図 5】



(English translation)

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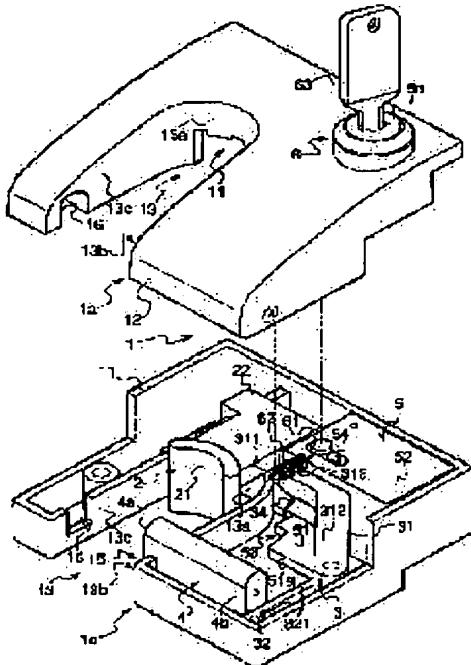
(22)Date of filing :

04.11.1994

(72)Inventor : FURUKAWA NORITERU

KISHIMOTO RYOZO
MORIMOTO HARUKI

(54) LOCKING DEVICE FOR UMBRELLA STAND



(57)Abstract:

PURPOSE: To provide a locking device for an umbrella stand of the one-touch type having high durability by preventing foreign matters from coming into the device.

CONSTITUTION: A locking member 4 is made linearly movable back and forth with respect to a supporting member 1 so as to open or close a recess 13. By forming the shape of an opening 15 provided on the side surface 13b of the recess 13 of the member 1 into such a shape as to resemble the cross-sectional shape of the member 4, a gap between the supporting member 1 and the locking member 4 at an unlocking position and at a locking position can be maintained nearly unchanged and smaller as far as possible.

* NOTICES *

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 - 3.In the drawings, any words are not translated.
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CLAIMS

[Claim(s)]

[Claim 1] The supporter material which cut in the front face the crevice which contains the shank of an umbrella, and the locking member arranged so that it might be contained by said supporter material and might move from the side face of a crevice to a crevice, It comes to provide the closing motion carbon button arranged in order possible [an attitude] near the way edge among said crevices, and the converter of operation which changes attitude motion of said closing motion carbon button into attitude motion of said locking member. It is locking equipment for umbrella stands which constitutes and becomes so that it may lock by a locking member's marching out in a crevice from opening of a crevice side face, and connecting the both-sides side of a crevice, if a closing motion carbon button is retreated. the forward/backward moving of said locking member -- appearance in the work -- the clearance between a locking member and said opening -- abbreviation -- the locking equipment for umbrella stands characterized by having set up so that it may be kept constant.

[Claim 2] Locking equipment for umbrella stands according to claim 1 which said locking member is linear [-like] and is characterized by constituting so that attitude actuation of the straight-line top may be carried out.

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Industrial Application] This invention relates to the locking equipment for umbrella stands which may keep an umbrella suitably by one-touch.

[0002]

[Description of the Prior Art] As conventional locking equipment for umbrella stands, as shown in drawing 5, the crevice b which contains the shank of an umbrella is cut in the front face of the supporter material a, and what was constituted by pivoting the locking member c rotatable at the front edge of the supporter material a at the circumference of vertical axes is mentioned. In order to hold an umbrella to the locking equipment for umbrella stands of such a configuration and to lock it, after arranging an umbrella on Crevice b first, after rotating the locking member c in the locking location B

from the unlocking location A, locking is performed, and the locking member c is fixed to the locking location B. Since it is necessary to rotate the locking member c with such locking equipment for umbrella stands of a configuration, holding an umbrella to a crevice, it is difficult to do a locking activity single hand.

[0003] There are some which turned the closing motion carbon button d from the method edge of the inside of Crevice b to the front face, protruded, and were constituted while arranging in the interior of the supporter material a rotatable so that the locking member c might be contained inside supporter material [from the side face of Crevice b] a at the time of unlocking, as it was shown in drawing 6 , in order to cancel this fault. In order to make an umbrella hold to the locking equipment for umbrella stands of such a configuration and to lock it, after arranging an umbrella on Crevice b first, by pushing the closing-motion carbon button d with an umbrella, and making the locking member c march out from the unlocking location A inside the supporter material a to the locking location B in Crevice b through the side face of Crevice b, the both-sides side of Crevice b is connected by the locking member c, and is locked. Since it can lock only by pushing the closing motion carbon button d with an umbrella, a locking activity can be done single hand and it is very simple.

[0004]

[Problem(s) to be Solved by the Invention] However, there is fault of being it easy to break down to be locking equipment for umbrella stands of such structure. That is, although it constitutes in the supporter material a so that Opening e may be formed in the near crevice side face in which the locking member c **** and the attitude of the locking member c may be attained, with the conventional locking equipment for umbrella stands which is rotating the locking member c directly by push of the closing motion carbon button d, Opening e must be set up very greatly. Therefore, moisture and a foreign matter tend to trespass upon the interior of locking equipment from Opening e, and it is rusted and has become the greatest cause of failures, such as ***** plugging.

[0005] This invention aims at solving these technical problems effectively.

[0006]

[Means for Solving the Problem] The following configurations are used for this invention in order to attain this purpose.

[0007] Namely, the locking equipment for umbrella stands concerning this invention The supporter material which cut in the front face the crevice which contains the shank of an umbrella, and the locking member arranged so that it might be contained by said supporter material and might move from the side face of a crevice to a crevice, It comes to provide the closing motion carbon button arranged in order possible [an attitude] near the way edge among said crevices, and the transducer of operation which changes attitude movement of said closing motion carbon button into attitude movement of said locking member. In what constitutes and becomes so that it may lock by a locking member's marching out in a crevice from opening of a crevice side face, and connecting the both-sides side of a crevice, if a closing motion carbon button is retreated It is characterized by having set up so that the clearance between a locking

member and said opening may be maintained by abbreviation regularity during attitude actuation of said locking member.

[0008] As one mode of operation of said locking member, it is a straight-line configuration and what was made to carry out attitude actuation of the straight-line top can be mentioned.

[0009]

[Function] The clearance between a locking member and opening can be kept small as much as possible at the time of locking and unlocking by making the configuration of opening approximate that it is locking equipment for umbrella stands of such a configuration to the cross-section configuration of a locking member. Therefore, possibility that moisture and a foreign matter will trespass upon the interior of supporter material through this clearance can be decreased sharply, and it becomes possible to make fear of failure as there is almost nothing.

[0010]

[Example] Hereafter, one example of this invention is explained with reference to drawing 1 – drawing 4.

[0011] The locking equipment for umbrella stands in this example is constituted by the supporter material 1, the closing motion carbon button 2, the transducer 3 of operation, the locking member 4, the lock section 5, and the key part 6 as shown in drawing 1 and drawing 2.

[0012] The supporter material 1 is a thing made of resin, it comes to provide the body 11 which makes the partial case configuration where the top face was opened wide, and the covering device 12 which makes the partial case configuration where the lower part was opened wide, installs a covering device 12 in the top face of a body 11, and is constituted as a case in the air. The crevice 13 which contains the shank of an umbrella is cut in front 1a toward back. The width of face of a crevice 13 is set up a little more greatly than the width of face of the shank of the umbrella to contain. Method edge of inside 13a has formed opening 14 in order to make nothing and the closing motion carbon button 2 the shape of radii move. In order to make the locking member 4 move, the engagement hole 16 which engages opening 15 with tip 4a of the locking member 4 in a locking location again at left lateral 13c is formed in right lateral 13b, respectively.

[0013] The closing motion carbon button 2 is a thing made of resin, and is arranged in order by way edge 13a possible [an attitude] among crevices 13. The front carbon button side 21 is in the configuration of way edge 13a, abbreviation, etc. by carrying out among crevices 13, and he is trying to make the shape of radii. From the center of a rear face of the carbon button side 21, the tabular end face section 22 was made to extend back, and it has inserted in the opening 14 prepared in way edge 13a among crevices 13. In order to engage with the transducer 3 of operation, the oblong engagement slot 23 is cut in right and left on the back end inferior surface of tongue of the end face section 22.

[0014] The transducer 3 of operation comes to provide an arm 31 and a slider 32. It is the thing of the lever configuration made of resin, and the short hand part 311 is set to the closing motion carbon button 2 side, it sets the longitudinal section 312 to the

locking member 4 side, and the arm 31 is pivoted by the body 11 of the supporter material 1 rotatable through the pivot 313. Torsion spring 314 is arranged in a pivot 313, and elastic energization is carried out so that it may rotate in the direction in which the short hand part 311 turns the closing motion carbon button 2 ahead, and pushes it. Protrude up, and the engagement pin 315 is made to advance into the engagement slot 23 of the inferior surface of tongue of the end face section 22 of the closing motion carbon button 2, and is made engaged free [a slide] near the tip of the short hand part 311. Moreover, in order to engage with the locking member 4 near the tip of the longitudinal section 312, the engagement pin 316 is turned caudad and it protrudes. A slider 32 is what formed the engagement slot 321 of the fixed depth in the top face at the cross direction, makes the engagement pin 316 prepared in the inferior surface of tongue of the longitudinal section 312 advance, and is engaged free [an arm 31 and a slide]. In addition, said slider 32 is the left lateral front end, and is fixed to back end 4b of the locking member 4.

[0015] The locking member 4 is a thing made of resin, and the body 11 of nothing and the supporter material 1 arranges the rod configuration which is a cross-section ellipse configuration in the vertical direction possible [an attitude right and left]. In a unlocking location, as shown in drawing 3, it is contained inside the supporter material 1. In a locking location, as shown in drawing 4, it marches out in a crevice 13 from the opening 15 of right lateral 13b of a crevice 13, and tip 4a advances and engages with the engagement hole 16 of left lateral 13c.

[0016] The lock section 5 is a thing made of resin, on the right-hand side of [back end] the base 51 which extends right and left, it protrudes up and the key engagement section 52 is constituted. Front 51a of a base 51 was installed in back end 32a of the slider 32 of the transducer 3 of operation, and has formed the notch 53 which cut back and was lacked in the left end. In the upper limit of the key engagement section 52, in order to connect with a key part 6, the long hole 54 which extends right and left is penetrated.

[0017] A key part 6 is a metal thing and is arranged by the covering device 11 of the supporter material 1. The key part 6 has attached the elastic energization pin 61 in the part biased from the revolving-shaft alignment on covering device 12 inferior surface of tongue of the supporter material 1. That is, the elastic energization pin 61 is constituted so that it may advance into the long hole 54 of the lock section 5 and may engage with this free [a slide], while it was set up so that radii movement with a large variation rate might be performed to a cross direction with rotation of a key part 6, and elastic energization is ahead carried out with a spring 62. The metal key 63 can be inserted in top-face 6a of a key part 6, and in it, it constitutes so that said elastic energization pin 61 may be pushed in a back unlocking location by rotation of a key 63. Moreover, the known key omission stop device which is not illustrated is given so that the omission stop of a key 63 is performed when the elastic energization pin 61 comes to the unlocking location shown in drawing 3, and this omission stop may be canceled, when the elastic energization pin 61 moves to the locking location shown in drawing 4.

[0018] Actuation of locking is it as follows that it is locking equipment for umbrella

stands of such a configuration. First, as the shank of an umbrella is allotted to a crevice 13 and it is shown in drawing 3, it installs in the carbon button side 21 of the closing motion carbon button 2, and pushes back. Since the end face section 22 of the closing motion carbon button 2 is pushed back, by this the arm 31 of the transducer 3 of operation Since the short hand part 311 is back pushed through the engagement pin 315 and it rotates in the clockwise direction centering on a pivot 313, while the engagement pin 316 slides the inside of the engagement slot 321 which advanced to the method of the forward left and was established in the slider 32 to the front with the longitudinal section 312, this slider 32 is pushed to a left to coincidence. That is, conversion of operation of the migration behind the closing motion carbon button 2 is carried out through rotation of an arm 31 at migration to the left of a slider 32. In connection with this, tip 4a is advanced and engaged at the engagement hole 16 of left lateral 13c of a crevice 13, and the locking member 4 stops in a locking location, as it is pushed by slide 32, it moves to a left from the unlocking location in the supporter material 1, it marches out into a crevice 13 through the opening 15 of right lateral 13b of a crevice 13 and it is shown in drawing 4. Since back end 32a of the slider 32 of the transducer 3 of operation results in coincidence at the notch 53 prepared in the base 51 of the lock section 5, as shown in drawing 4, the lock section 5 by which elastic energization was ahead carried out with the spring 62 moves ahead, and a notch 53 and back end 32a of a slider 32 are engaged. Thereby, since a slider 32 has migration to the method of the right prevented, even after stopping a push to the closing motion carbon button 2, it is held by the locking member 4 with a slider 32 in a locking location. Moreover, in order that the lock section 5 may follow on moving ahead and may also move the elastic energization pin 61 ahead, it illustrates, twists and escapes, a stop device is canceled, and sampling of a key 63 becomes possible from a key part 6.

[0019] In case it unlocks, in order that the elastic energization pin 61 may move back and may push the lock section 5 back by inserting a key 63 in a key part 6, and rotating, engagement to back end 32a of the slider 32 of the notch 53 of the end face section 51 of the lock section 5 and the transducer 3 of operation separates, and a slider 32 becomes movable at the method of the right. Thereby, it is rotated in the counterclockwise direction with the torsion spring 314 arranged by the pivot 313, the arm 31 of the transducer 3 of operation moving a slider 32 to the method of the right. In connection with this, the locking member 4 moves to the method of the right from a locking location, is contained in the supporter material 1 in a unlocking location, and the closing motion carbon button 2 is also pushed ahead, and it returns to coincidence from a locking location in a unlocking location.

[0020] It can be made very small, keeping constant the clearance between opening 15 and the locking member 4, whenever it makes the opening 15 which the locking member 4 prepared in right lateral 13b of a crevice 13 in order [to a crevice 13] to move a straight-line top in the case of an attitude as it is locking equipment for umbrella stands of such a configuration approximate to the cross-section configuration of the locking member 4. For this reason, moisture and a foreign matter decrease sharply possibility of trespassing upon the interior of the supporter material 1, and become

possible [making very small generating of the failure based on this factor]. Moreover, in a unlocking location, if it constitutes so that the location of tip 4a of the locking member 4 may come to the location of opening 15, since tip 4a of the locking member 4 can achieve the function of the lid of opening 15 at the time of unlocking, the possibility of invasion of a foreign matter can be decreased further. Moreover, since the carbon button side 21 of the closing motion carbon button 2 makes a radii configuration, it can lose with [of an umbrella] GURA, can realize an orderly receipt condition upwards, in case it installs and pushes an umbrella, it can reduction-ize possibility that an umbrella will separate from the closing motion carbon button 2, and can raise the operability at the time of locking by one-touch. Furthermore, since all members other than key part 6 are resins, it becomes possible not to damage an umbrella carelessly and to consider as what has high endurance.

[0021] In addition, the configuration in this invention of not being limited to what was explained above is natural. For example, it is also possible to consider as a configuration example and right and left. [this] Moreover, it is also possible to constitute so that two or more locking members may be made to march out from the both-sides side of a crevice. Moreover, the straight-line configuration of the configuration of a locking member is possible also for considering as the thing of the radii configuration in which it does not restrict, for example, the cross section of arbitration may pass opening. In addition, it can deform variously in the range which does not deviate from this invention.

[0022]

[Effect of the Invention] As explained in full detail above, by reducing the clearances between openings equally at the time of locking and unlocking, the locking equipment for umbrella stands concerning this invention can decrease sharply possibility that moisture and a foreign matter will trespass upon the interior of supporter material, and does so the effectiveness according to rank of becoming possible to make fear of the failure based on this factor as there is almost nothing.

[Brief Description of the Drawings]

[Drawing 1] The decomposition perspective view showing one example of this invention.

[Drawing 2] The perspective view in which decomposing into further and showing drawing 1 .

[Drawing 3] The top view showing the unlocking condition of this example.

[Drawing 4] The top view showing the locking condition of this example.

[Drawing 5] The top view showing the conventional example.

[Drawing 6] The top view showing other conventional examples.

[Description of Notations]

1 -- Supporter material

1a -- Front face

2 -- Closing motion carbon button

3 -- Transducer of operation

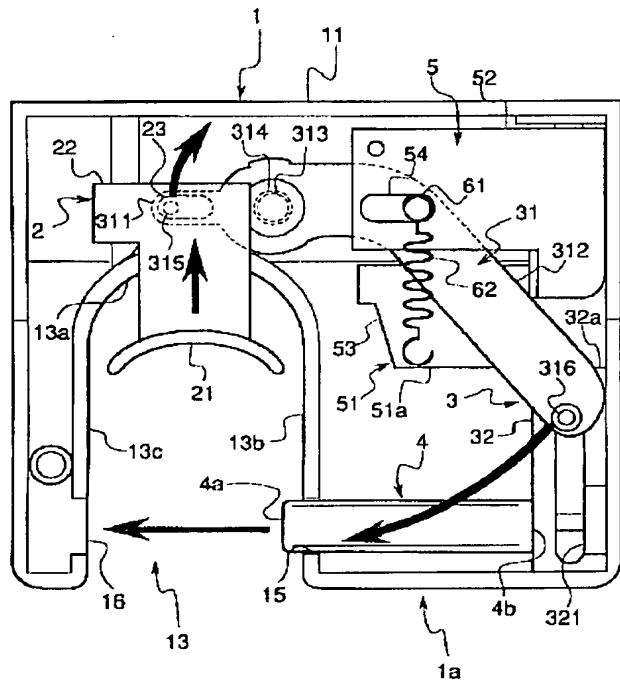
4 -- Locking member

13 -- Crevice

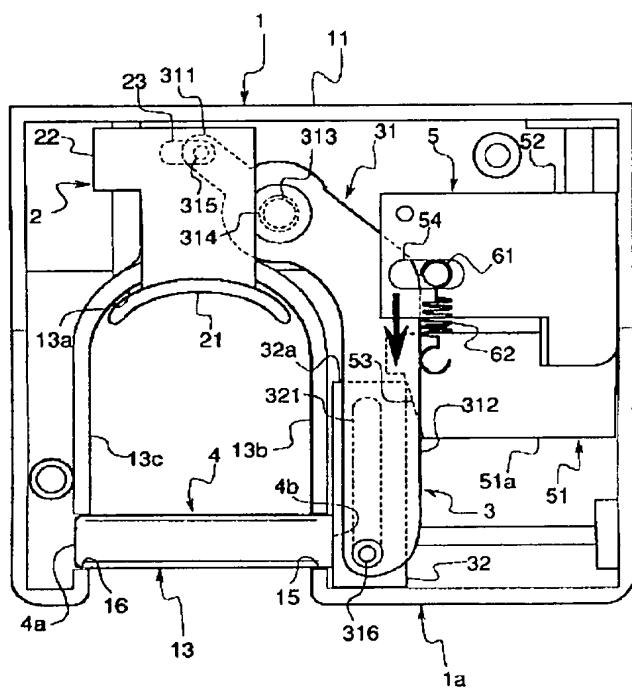
- 13a -- Method edge of inside
13b -- Side face (right lateral)
13c -- Side face (left lateral)
15 – Opening

DRAWINGS

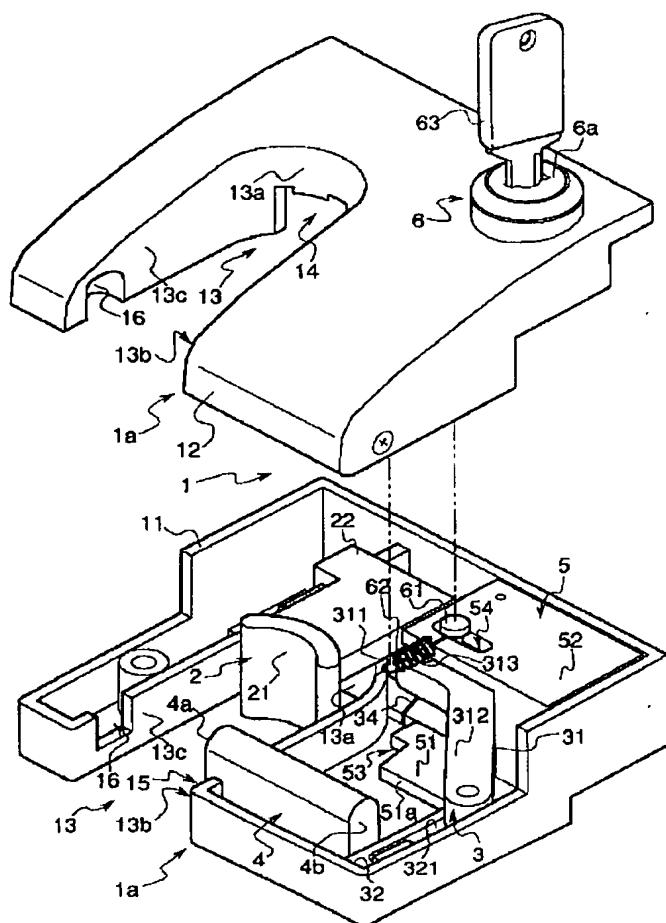
[Drawing 3]



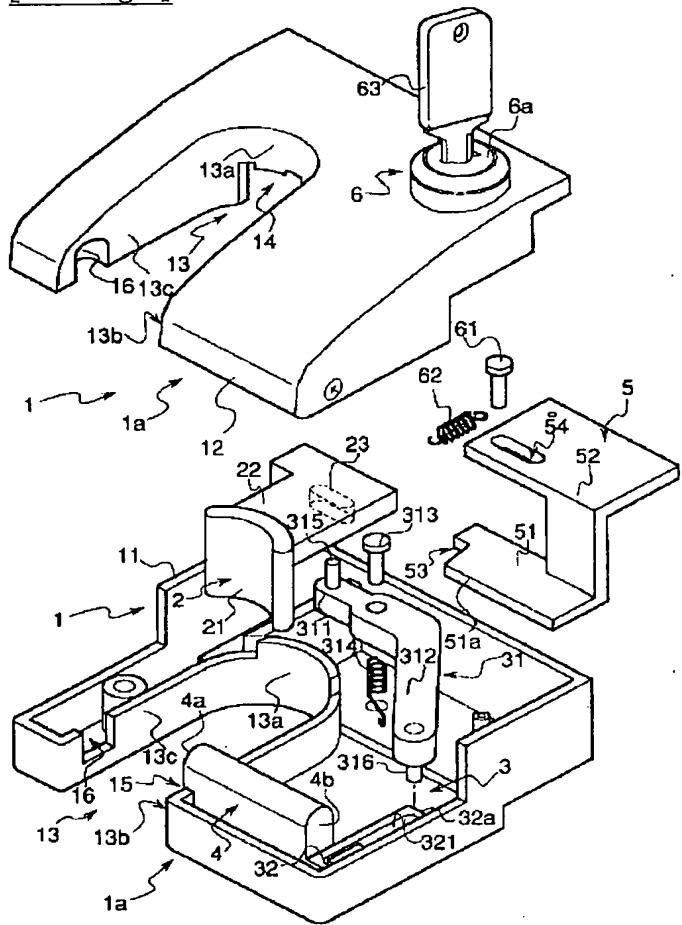
[Drawing 4]



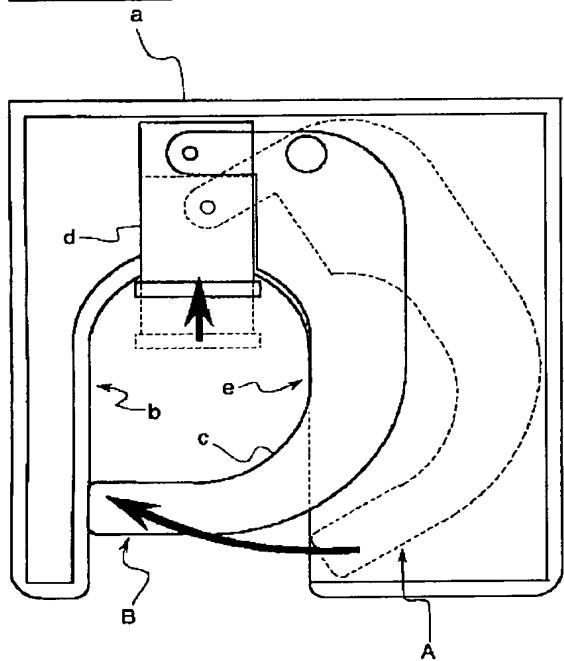
[Drawing 1]



[Drawing 2]



[Drawing 6]



[Drawing 5]

